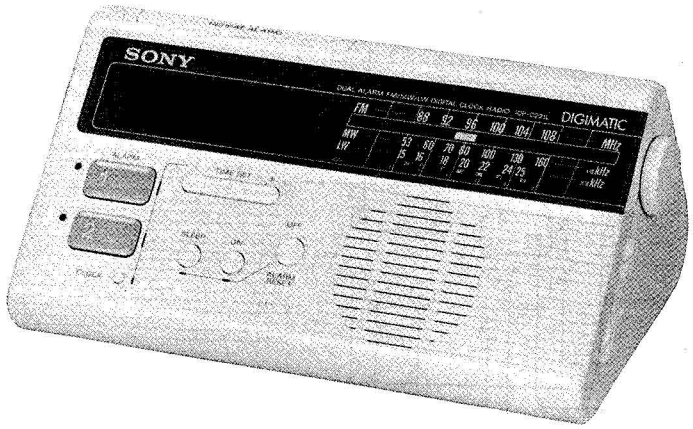
ICF-C221L

SERVICE MANUAL

AEP Model
UK Model
FRENCH Model



SPECIFICATIONS

Frequency range	FM: 88–108 MHz (UK model) 88–106 MHz (AEP, G-AEP, FRENCH model) MW: 530–1,605 kHz LW: 150–255 kHz
Antennas	FM: FM wire antenna MW/LW: Built-in ferrite bar antenna
Speaker	Approx. 6.6 cm (2⅝ inches) dia.
Power output	300 mW
Power requirement	UK model: 240 V AC, 50 Hz AEP, G-AEP, FRENCH model: 220 V AC, 50 Hz For the power backup function: 9 V DC, one 6F22 battery
Battery life	Approx. 6 hours, using Sony battery S-006P(U)
Time display	UK model: 12-hour system AEP, G-AEP, FRENCH model: 24-hour system
Dimensions	245 x 105 x 132 mm (w/h/d) (9¾×4¼×5¼ inches) incl. projecting parts and controls
Weight	Approx. 1.2 kg (2.65 lb) not incl. battery

FEATURES

- Dual alarm setting: alarm 1 (radio) and alarm 2 (buzzer).
- Easy-to-read two-color fluorescent, dual time display: Current time and preset time.
- Power backup function to keep the clock operating during a power interruption.
- REPEAT ALARM, feather-light touch to operate, and having functions: snooze alarm, sleep timer off, and indication of the remaining time of the sleep timer.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

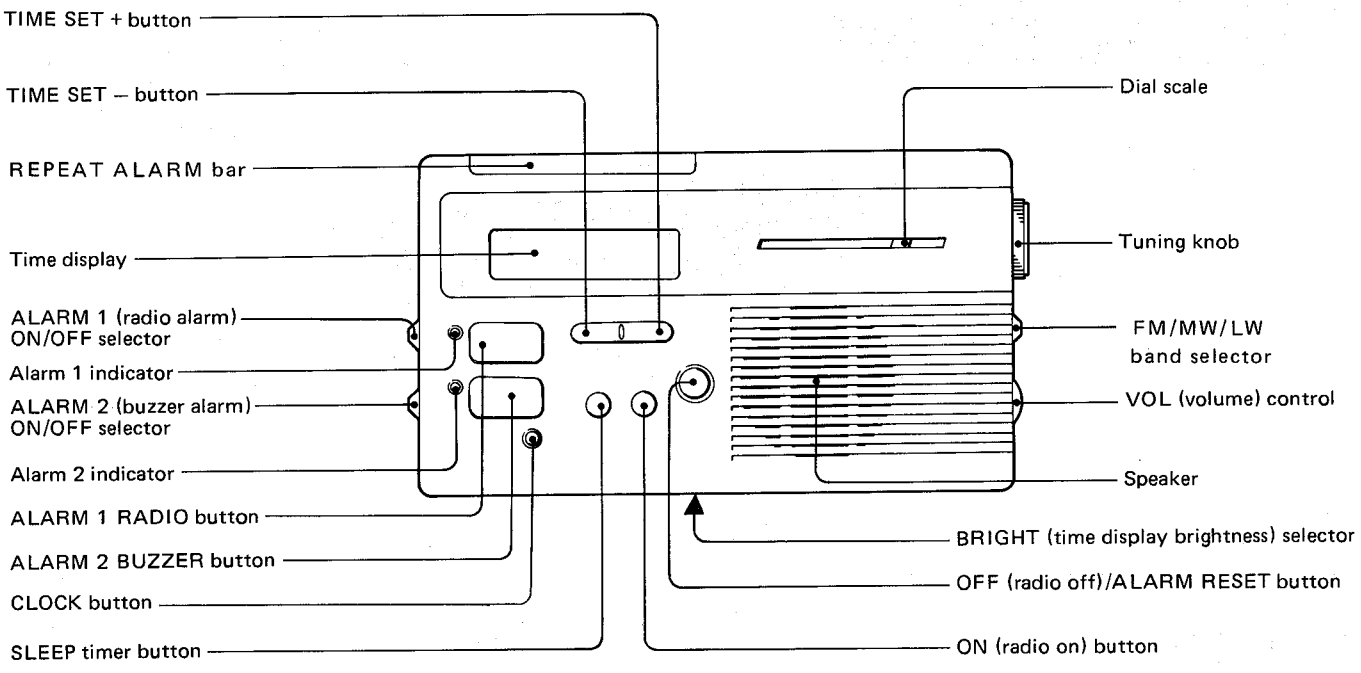
DUAL ALARM FM/MW/LW 3BAND DIGITAL CLOCK RADIO

SONY®

MICROFILM

TR

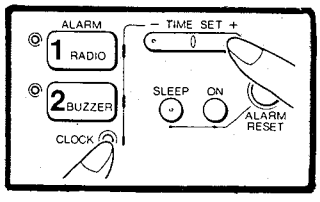
SECTION 1
OUTLINE



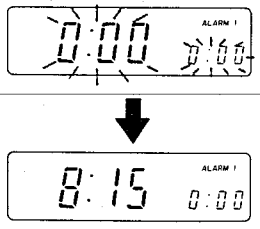
1-2. HOW TO SET THE CLOCK

1 Connect the AC power cord to a wall outlet.
Figures will appear and begin to flicker.

2 Adjust the clock to the current time with TIME SET + and – while keeping CLOCK pressed.



Example: To set to 8:15



The illustrations are for the countries except the UK.

Only the UK model shows 12-hour time display.

AM 12:00 = midnight PM 12:00 = noon

ZERO SECOND ADJUSTMENT

If you want to adjust the time exactly to the second with a radio or a telephone time signal, proceed as in the following example.

Example: To set to 8:15

1 Adjust the time indication to 8:16 as described before.
2 While keeping CLOCK pressed, press TIME SET – simultaneously with the radio or the telephone time signal.

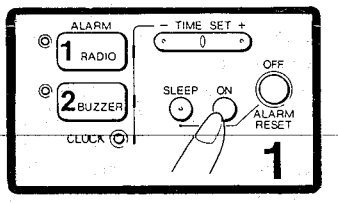
To adjust the time indication precisely, turn back the time indication with the TIME SET – button, since the time digits advance rapidly with the TIME SET + button.

Note: The minute digits advance to "00" after "59". Then, the hour digits advance by one.

Time display brightness
Three positions, H (high), L (low), OFF are selectable.

1-3. RADIO OPERATION

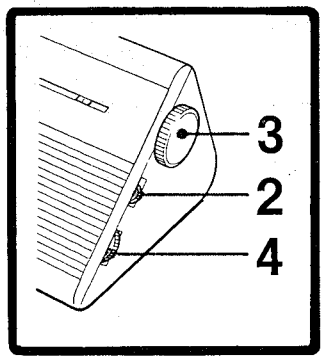
1 Press ON.



2 Select FM, MW or LW.

3 Tune in the desired station.

4 Adjust the volume.



To turn off the radio, press OFF.

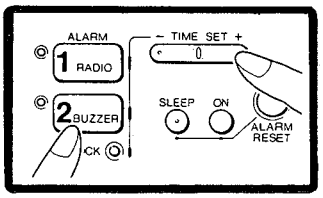
TO IMPROVE RECEIVING CONDITION

FM: Extend the FM wire antenna fully to increase the FM sensitivity.

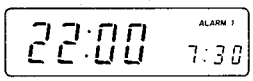
MW/LW: Since the reception is affected by the direction of the radio, rotate the radio horizontally for optimum reception.

1-4. HOW TO SET THE ALARM

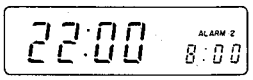
1 Set the alarm time with TIME SET + and – while keeping 1 RADIO or 2 BUZZER pressed.
Either of the order of alarm setting (alarm 1 → alarm 2 or alarm 2 → alarm 1) is possible.



Example 1: To set the alarm 1 to 7:30



Example 2: To set the alarm 2 to 8:00



2 Set ALARM 1 or 2 ON/OFF to ON.

For radio alarm (alarm 1)
Tune in the desired station as described on page 9 before setting the alarm.

The desired alarm sound will come on at the preset time.

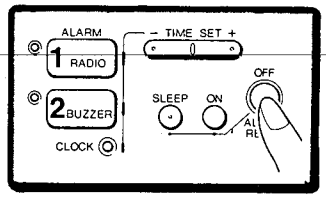
The alarm 1 or 2 indicator lights up when the ALARM 1 or 2 ON/OFF selector is set to ON.

The volume of the alarm sound
- The radio volume can be adjusted.
- The buzzer volume is fixed.

To check the preset time, press the ALARM 1 RADIO or ALARM 2 BUZZER button.
The preset time of the button pressed at last is indicated.
If you press the ALARM 1 RADIO or 2 BUZZER button while the alarm sound is on, it will be turned off.

WHEN THE ALARM SOUND COMES ON

To stop the radio or buzzer sound, press ALARM RESET.
If you do not press, the alarm sound will be shut off automatically after about 59 minutes.



Snooze alarm function
If you wake to the alarm sound in the morning but want to doze for a few more minutes, just lightly press REPEAT ALARM. The alarm sound will be silenced, but will automatically come on again after about six minutes. If you want to doze more, press the bar again. You can repeat this snooze function as many times as you like.

To wake to the alarm sound at the same time the next day, leave the ALARM 1 and 2 ON/OFF set to ON.

If there is less than 59 minutes between the two alarms, the order in which you set the alarms is important.
1) If the radio alarm is set first, the radio sound will be heard until the buzzer alarm comes on.
2) If the buzzer alarm is set first or the snooze function is used with the buzzer, the radio alarm will not come on or the snooze function will not operate unless 2 BUZZER has been pressed. Therefore, once the buzzer alarm has come on, the first person to get up should press 2 BUZZER before leaving the room.

Time display brightness
If you set the selector to OFF before you fall asleep, it will come on with high density at the preset time of either the alarm 1 or 2 or when the REPEAT ALARM bar is pressed and the snooze function is operating. The selector will go back to the OFF level when you press the OFF button.

If you want to listen to the radio continuously, press ON.

If you set alarm 1 and 2 to the same time, only the radio sound will be heard.

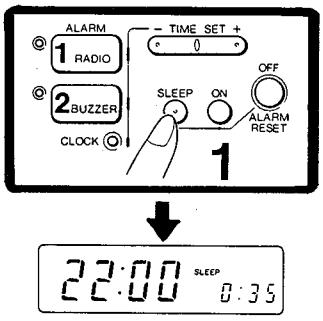
To cancel the alarm, set the ALARM 1 or 2 ON/OFF selector to OFF.

1-5. HOW TO SET THE SLEEP TIMER

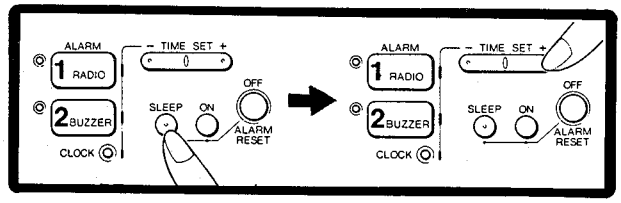
When you fall asleep, you can listen to the radio by the sleep timer.

1 Press SLEEP and set the desired duration of listening.

While keeping SLEEP pressed or TIME SET – after pressing SLEEP once, the digits will be counted down by 1 from 0:59. After 0:00, the digits come up to 5:59.



To advance the digits rapidly, press TIME SET + after pressing SLEEP once.

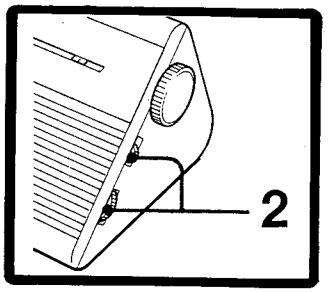


The alarm 1 or 2 indicator lights up when the ALARM 1 or 2 ON/OFF selector is set to ON.

The volume of the alarm sound
- The radio volume can be adjusted.
- The buzzer volume is fixed.

To check the preset time, press the ALARM 1 RADIO or ALARM 2 BUZZER button.
The preset time of the button pressed at last is indicated.
If you press the ALARM 1 RADIO or 2 BUZZER button while the alarm sound is on, it will be turned off.

2 Tune in the desired station and adjust the volume.



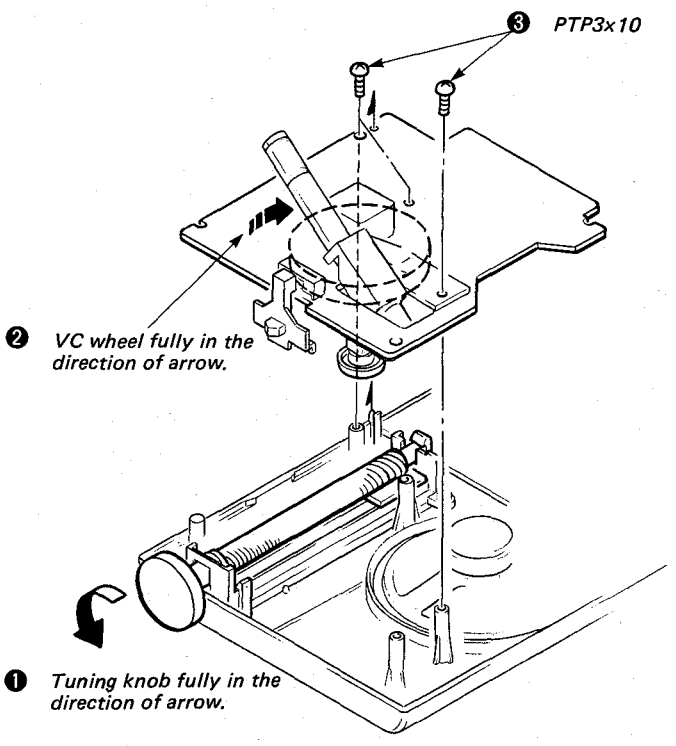
The radio will turn off automatically after the preset time has elapsed.

Time display
When the preset time has elapsed, the alarm time appears instead of the remaining time of the sleep timer.

Time display brightness
When you set the BRIGHT selector to OFF, only the remaining time of the sleep timer is indicated.

SECTION 2
DIAL POINTER INSTALLATION

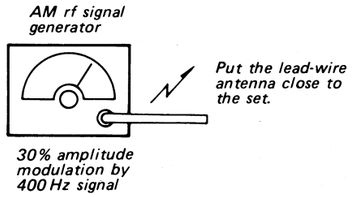
DIAL POINTER SETTING

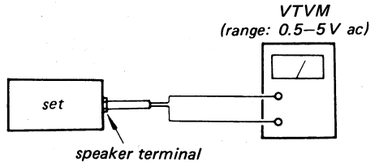


SECTION 3
ADJUSTMENTS

3-1. AM SECTION

BAND Select Switch: MW, LW



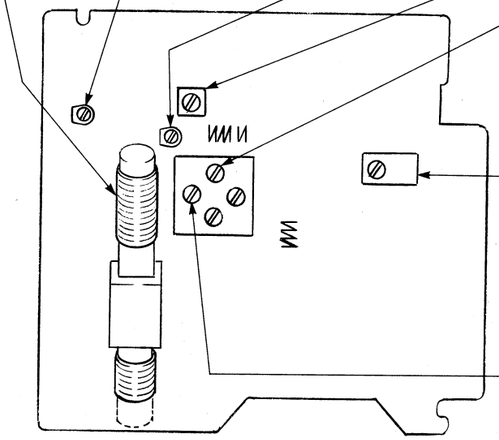


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
160kHz	240kHz
L2-2	CT5

LW FREQUENCY COVERAGE ADJUSTMENT
Adjust for a maximum reading on VTVM.
145kHz
CT6

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L6	520kHz
CT4	1,680kHz

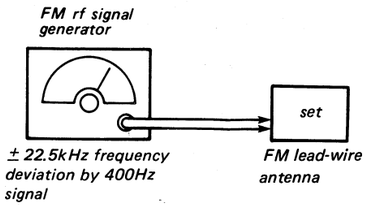


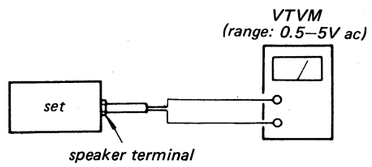
AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
CFZ1	455kHz

CT1	1,400kHz
L2-1	600kHz
Adjust for a maximum reading on VTVM.	
MW TRACKING ADJUSTMENT	

3-2. FM SECTION

BAND Select Switch: FM





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

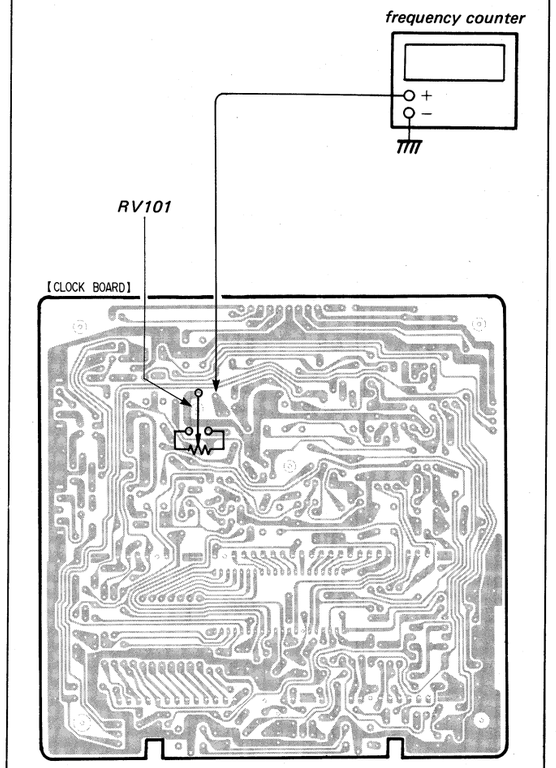
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
107.8MHz (AEP, G-AEP, FRENCH) 109.5MHz (UK)	87.4MHz (AEP, G-AEP, FRENCH) 86.5MHz (UK)
CT3	L5

L3, L4	87.4MHz (AEP, G-AEP, FRENCH) 86.5MHz (UK)
CT2	107.8MHz (AEP, G-AEP, FRENCH) 109.5MHz (UK)
Adjust for a maximum reading on VTVM.	
FM TRACKING ADJUSTMENT	

Clock Osc Frequency Adjustment

Procedure:
Adjust RV101 for 2.2 kHz ± 5 Hz reading on the frequency counter.

Adjustment Location : clock board



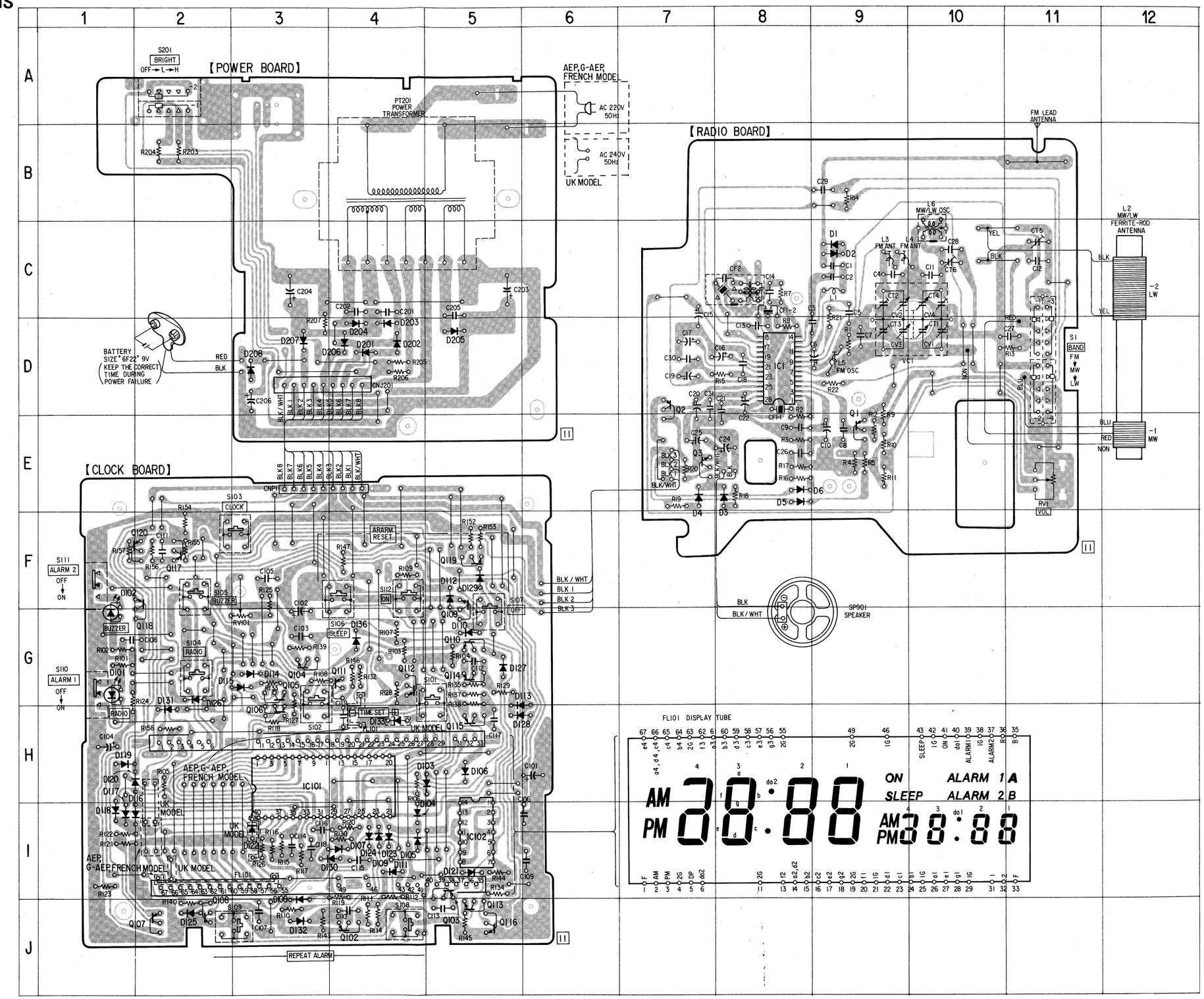
SECTION 4
DIAGRAMS

4-1. MOUNTING DIAGRAM

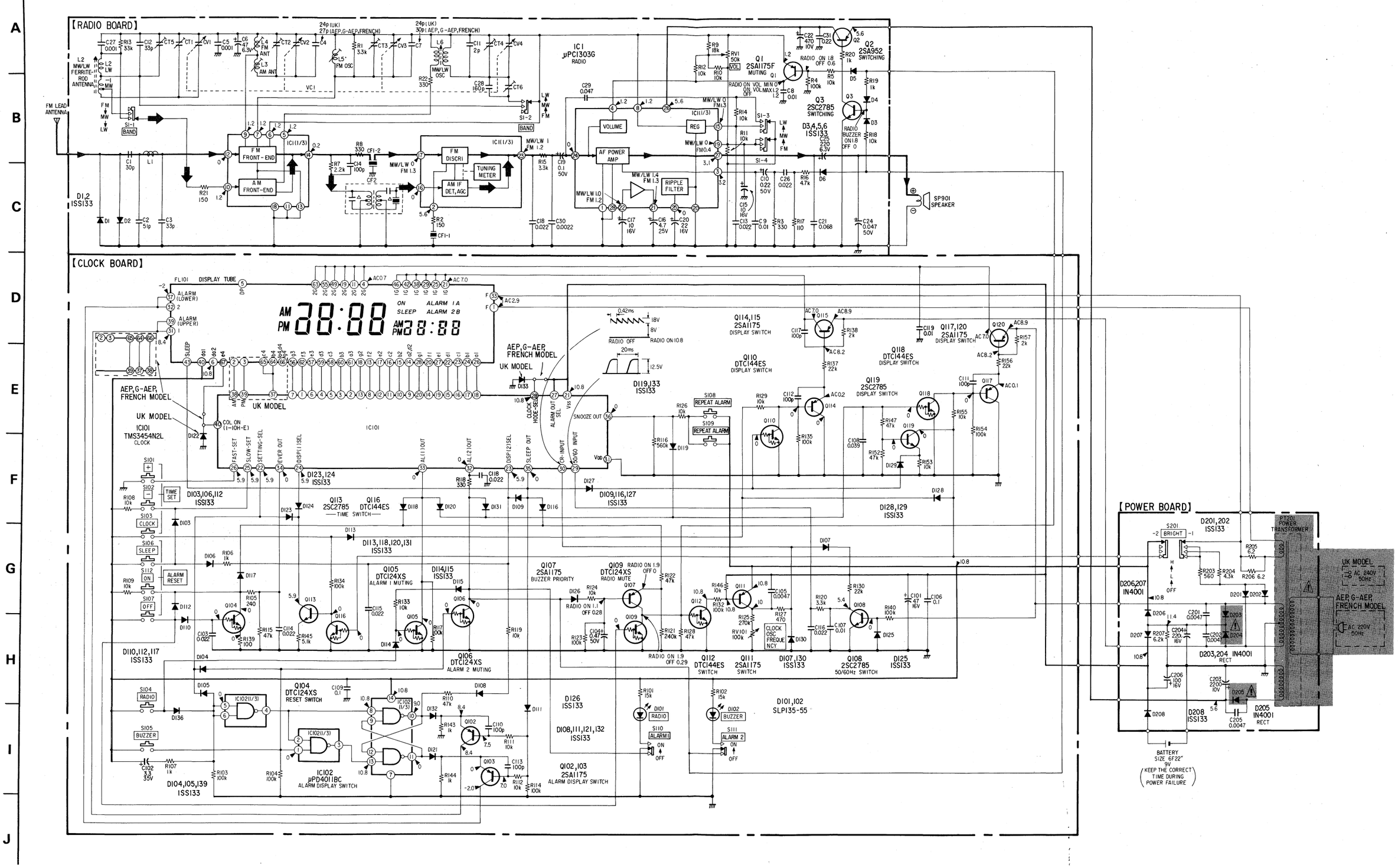
Note:

- ○—— : parts extracted from the component side.
- ⬚⊢ : indicates side identified with part number.

Ref. No.	Location	Ref. No.	Location
D1	C-9	D133	H-4
D2	C-9	D136	G-4
D3	E-8	D201	D-4
D4	E-7	D202	D-4
D5	E-8	D203	D-4
D6	E-8	D204	D-4
D101	G-1	D205	D-5
D102	G-1	D206	D-4
D103	H-5	D207	D-3
D104	I-4	D208	D-3
D105	I-4		
D106	H-5	IC1	D-8
D107	I-4	IC101	H-3
D108	J-3	IC102	I-5
D109	I-4		
D110	G-5	Q1	E-9
D111	I-4	Q2	D-7
D112	F-5	Q3	E-7
D113	H-5	Q102	J-4
D114	G-3	Q103	I-5
D115	G-3	Q104	G-3
D116	I-2	Q105	G-3
D117	I-1	Q106	H-3
D118	I-1	Q107	J-2
D119	H-1	Q108	J-2
D120	H-2	Q109	G-5
D121	I-5	Q110	G-5
D122	I-3	Q111	G-4
D123	I-4	Q112	G-4
D124	I-4	Q113	J-5
D125	J-2	Q114	G-5
D126	G-2	Q115	H-5
D127	G-5	Q116	J-5
D128	H-5	Q117	F-2
D129	F-5	Q118	F-2
D130	I-4	Q119	F-5
D131	H-2	Q120	F-2
D132	J-3		



4-2. SCHEMATIC DIAGRAM



Note:

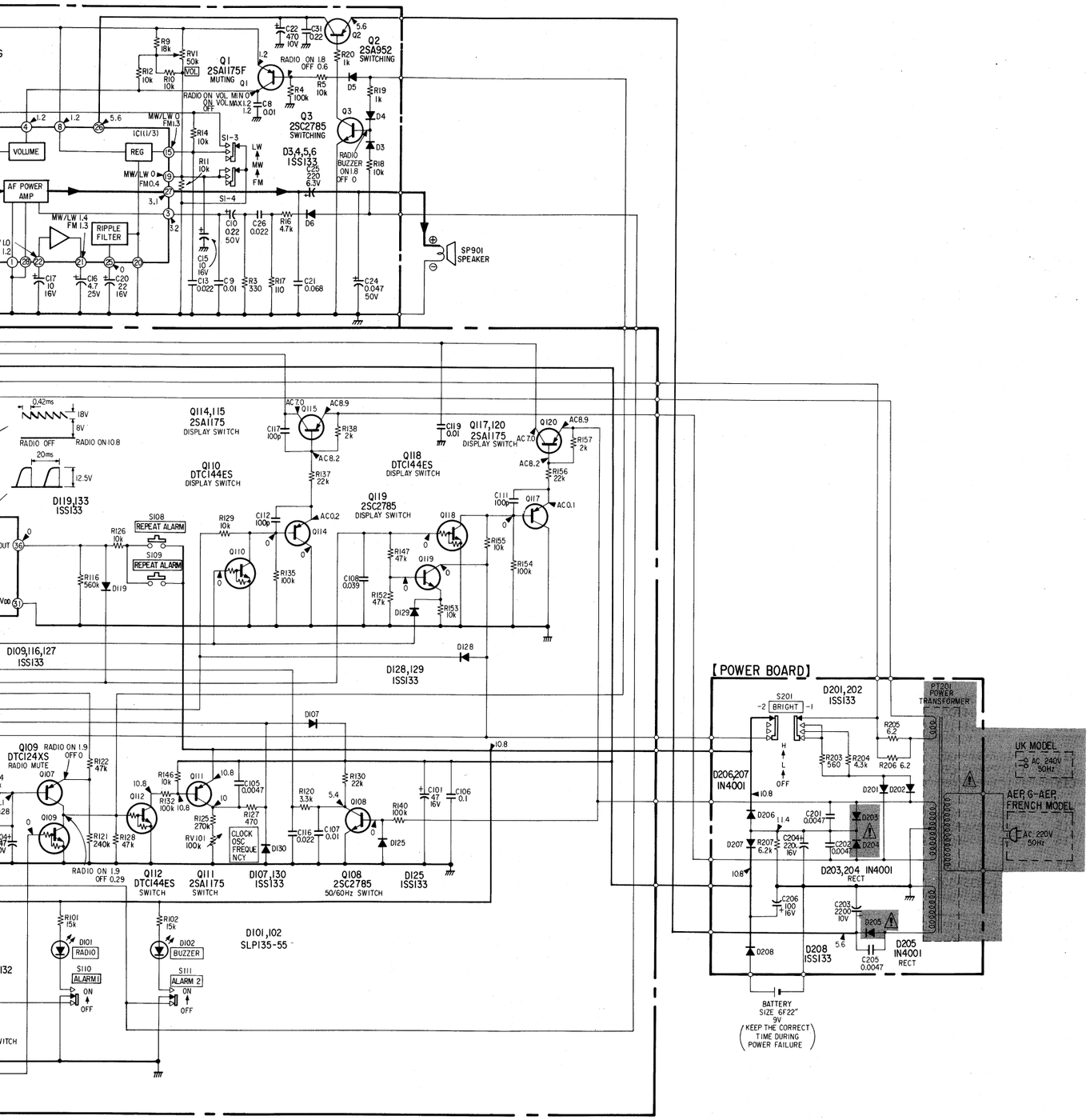
- All c… 50 W … and t…
- All r… speci…
- …
- △
- …
- Volta… notec…
- Read… with …
- Volta… tion t…

Note

Note:

- Swit…

Ref.
S1
S101
S102
S103
S104
S105
S106
S107
S108
S109
S110
S111
S201



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⟶ : FM signal path.
- ➡ : MW signal path.
- △ : internal component.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (50 kΩ/V).
- Voltage variations may be noted due to normal production tolerances.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

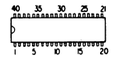
Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Switch

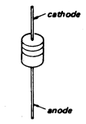
Ref. No.	Switch	Position
S1	BAND	FM
S101	TIME SET +	OFF
S102	TIME SET –	OFF
S103	CLOCK	OFF
S104	RADIO	OFF
S105	BUZZER	OFF
S106	SLEEP	OFF
S107	ALARM RESET OFF	OFF
S108	REPEAT ALARM	OFF
S109	REPEAT ALARM	OFF
S110	ALARM 1	OFF
S111	ALARM 2	OFF
S112	ALARM RESET ON	OFF
S201	BRIGHT	OFF

- **Semiconductor Lead Layouts**

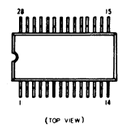
TMS3454BN2L



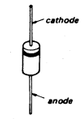
1SS119



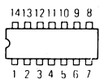
μPC1303G



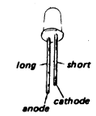
10E2



μPD4011BC

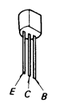


SLP135B-55

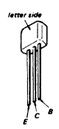


DTC124XS
DTC144ES

2SA952



2SA1175
2SC2785

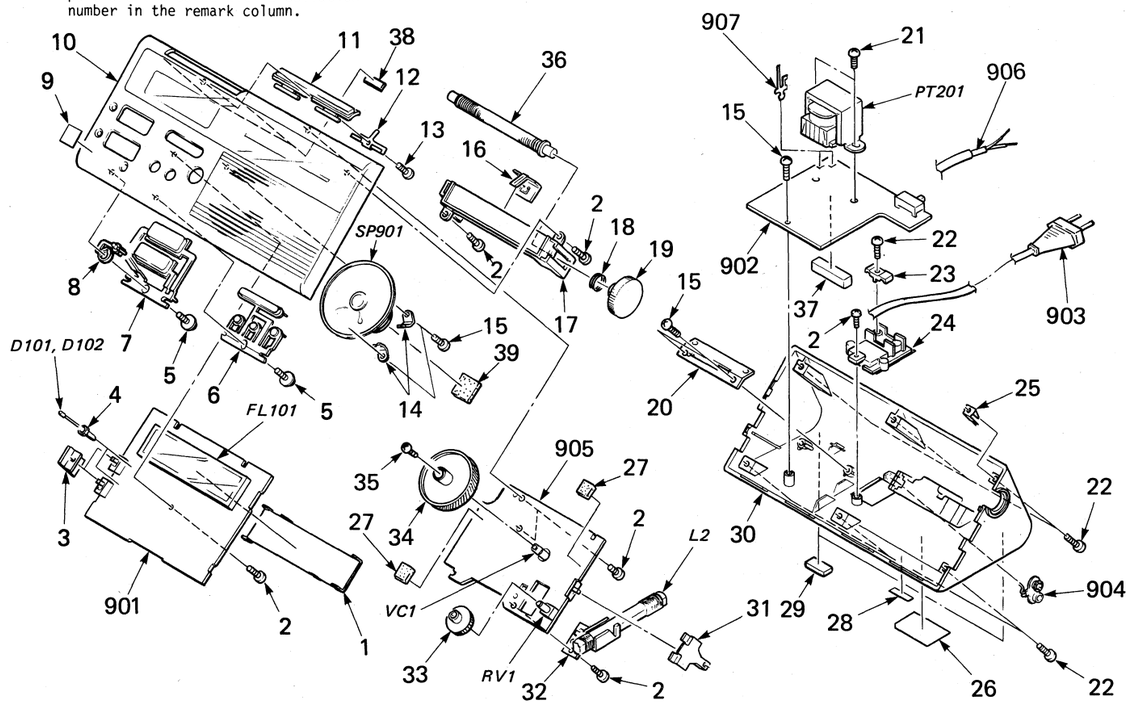


SECTION 5
EXPLODED VIEWS AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remarks
1	*3-897-227-01	PLATE (A), SHIELD	
2	7-685-147-14	SCREW +P 3X10 TYPE2 NON-SLIT	
3	3-898-164-01	KNOB, SLIDE	
4	*3-898-177-01	SPACER	
5	7-685-646-79	SCREW, TAPPING	
6	3-898-171-01	BUTTON, TIME SET	
7	3-898-172-01	BUTTON, ALARM	
8	3-898-173-01	BUTTON, CLOCK	
9	3-703-710-01	STICKER, SONY SYMBOL (12)	
10	A-3643-039-A	(AEP,G-AEP,FRENCH)...PANEL ASSY	
	A-3643-040-A	(UK).....PANEL ASSY	
11	3-898-163-21	BAR, DREAM	
12	3-898-175-01	SPRING	
13	7-685-133-19	SCREW +P 2.6X6 TYPE1	
14	3-893-011-01	BRACKET, SPEAKER	
15	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
16	3-898-166-01	POINTER	
17	3-898-167-01	CHASSIS, TUNING	
18	3-895-224-01	SPRING	
19	3-898-165-01	KNOB, TUNING	
20	*3-898-174-01	BRACKET, TRANSFORMER	
21	7-682-161-01	SCREW +BVTT 4X8 (S)	
22	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S	
23	3-884-408-00	STOPPER, CORD	
24	3-898-169-01	HOLDER, CORD	
25	3-898-182-01	TERMINAL, ANTENNA	
26	*3-898-198-01	(AE2).....LABEL, MODEL NUMBER	
	*3-898-199-01	(G-AEP)....LABEL, MODEL NUMBER	
	*3-898-801-01	(FRENCH)...LABEL, MODEL NUMBER	
	*3-898-802-01	(UK).....LABEL, MODEL NUMBER	
	*3-898-810-01	(AE1).....LABEL, MODEL NUMBER	
27	9-911-844-XX	CUSHION, SPEAKER	
28	*3-701-999-00	LABEL, SERIAL NUMBER	
29	3-898-176-01	FOOT, RUBBER	
30	3-898-183-61	(AEP,G-AEP,UK)...CABINET, REAR	
	3-898-183-81	(FRENCH).....CABINET, REAR	
31	3-898-181-01	KNOB, BAND	
32	*3-898-178-01	HOLDER, ANTENNA	
33	3-898-168-01	KNOB, VOLUME	
34	3-895-221-01	WHEEL, VC	
35	7-621-259-45	SCREW +P 2.6X6	
36	*3-896-202-01	SHAFT, TUNING	
37	9-911-842-XX	CUSHION (TRANSFORMER)	
38	3-831-441-XX	CUSHION, STOPPER	
39	*3-898-812-01	CUSHION, RUBBER	
901	*A-3661-052-A	(AEP,G-AEP,FRENCH)...MOUNTED PCB, CLOCK	
	*A-3661-054-A	(UK).....MOUNTED PCB, CLOCK	
902	*1-622-052-11	PC BOARD, POWER	
903	⚠1-551-958-00	(AEP,G-AEP,FRENCH)...CORD, POWER	
904	1-535-253-00	SNAP, BATTERY	
905	*A-3615-181-A	(AEP,G-AEP,FRENCH)...PC BOARD ASSY, RADIO	
	*A-3615-182-A	(UK).....PC BOARD ASSY, RADIO	
906	⚠1-559-511-11	(UK)....CORD, POWER	
907	1-535-416-00	TERMINAL	
FL101	1-519-432-11	INDICATOR TUBE, FLUORESCENT	
L2	1-402-315-11	ANTENNA, FERRITE-ROD (LW/MW)	
PT201	⚠1-448-969-11	(AEP,G-AEP,FRENCH)...TRANSFORMER, POWER	
PT201	⚠1-448-970-11	(UK)....TRANSFORMER, POWER	
RV1	1-237-708-11	RES, VAR, CARBON 50K (VOLUME)	
SP901	1-503-383-11	SPEAKER	
VC1	1-151-478-11	CAP, TUNING, PLOYETHYLENE	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-3661-052-A	(AEP,G-AEP,FRENCH)..MOUNTED PCB, CLOCK			
	*A-3661-054-A	(UK).....MOUNTED PCB, CLOCK			
902	*1-622-052-11	PC BOARD, POWER			
903	⚠1-551-958-00	(AEP,G-AEP,FRENCH)...CORD, POWER			
904	1-535-253-00	SNAP, BATTERY			
905	*A-3615-181-A	(AEP,G-AEP,FRENCH) ...PC BOARD ASSY, RADIO			
	*A-3615-182-A	(UK).....PC BOARD ASSY, RADIO			
906	⚠1-559-511-11	(UK)....CORD, POWER			
907	1-535-416-00	TERMINAL			
C1	1-102-962-00	CERAMIC	30PF	5%	50V
C2	1-101-882-00	CERAMIC	51PF	5%	50V
C3	1-102-963-00	CERAMIC	33PF	5%	50V
C4	1-102-959-00	(UK).....CERAMIC	22PF	5%	50V
C4	1-102-961-00	(AEP,G-AEP,FRENCH) ...CERAMIC	27PF	5%	50V
C5	1-162-294-31	CERAMIC	0.001MF	10%	50V
C6	1-123-306-00	ELECT	47MF	20%	6.3V
C7	1-102-960-00	(UK).....CERAMIC	24PF	5%	50V
C7	1-102-962-00	(AEP,G-AEP,FRENCH) ...CERAMIC	30PF	5%	50V
C8	1-101-004-00	CERAMIC	0.01MF		50V
C9	1-101-004-00	CERAMIC	0.01MF		50V
C10	1-124-464-11	ELECT	0.22MF	20%	50V
C11	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C12	1-102-963-00	CERAMIC	33PF	5%	50V
C13	1-101-005-00	CERAMIC	0.022MF		50V
C14	1-102-106-00	CERAMIC	100PF	10%	50V
C15	1-123-356-00	ELECT	10MF	20%	16V
C16	1-123-369-00	ELECT	4.7MF	20%	25V
C17	1-123-356-00	ELECT	10MF	20%	16V
C18	1-161-055-00	CERAMIC	0.022MF	10%	25V
C19	1-124-463-00	ELECT	0.1MF	20%	50V
C20	1-123-330-00	ELECT	22MF	20%	16V
C21	1-161-023-00	CERAMIC	0.068MF	10%	25V
C22	1-123-310-00	ELECT	470MF	20%	10V
C24	1-123-379-00	ELECT	0.47MF	20%	50V
C25	1-124-124-00	ELECT	220MF	20%	6.3V
C26	1-161-055-00	CERAMIC	0.022MF	10%	25V
C27	1-161-039-00	CERAMIC	0.001MF	10%	25V
C28	1-101-367-00	CERAMIC	160PF	5%	50V
C29	1-161-021-11	CERAMIC	0.047MF	10%	25V
C30	1-161-043-00	CERAMIC	0.0022MF	10%	25V
C31	1-161-896-11	CERAMIC	0.22MF		25V
C101	1-123-821-21	ELECT	47MF	20%	16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C102	1-124-258-00	ELECT	3.3MF	20%	35V
C103	1-161-494-00	CERAMIC	0.022MF		25V
C104	1-124-465-00	ELECT	0.47MF	20%	50V
C105	1-161-047-00	CERAMIC	0.0047MF	5%	25V
C106	1-161-772-11	CERAMIC	0.1MF	20%	25V
C107	1-161-379-00	CERAMIC	0.01MF	30%	16V
C108	1-161-020-11	CERAMIC	0.039MF	10%	25V
C109	1-161-772-11	CERAMIC	0.1MF	20%	25V
C110	1-162-282-31	CERAMIC	100PF	10%	50V
C111	1-162-282-31	CERAMIC	100PF	10%	50V
C112	1-162-282-31	CERAMIC	100PF	10%	50V
C113	1-162-282-31	CERAMIC	100PF	10%	50V
C114	1-161-494-00	CERAMIC	0.022MF		25V
C115	1-161-494-00	CERAMIC	0.022MF		25V
C116	1-161-494-00	CERAMIC	0.022MF		25V
C117	1-162-282-31	CERAMIC	100PF	10%	50V
C118	1-161-494-00	CERAMIC	0.022MF		25V
C119	1-161-379-00	CERAMIC	0.01MF	30%	16V
C201	1-101-003-00	CERAMIC	0.0047MF		50V
C202	1-101-003-00	CERAMIC	0.0047MF		50V
C203	1-123-974-00	ELECT	2200MF	20%	10V
C204	1-123-325-00	ELECT	2200MF	20%	16V
C205	1-101-003-00	CERAMIC	0.0047MF		50V
C206	1-123-333-00	ELECT	100MF	20%	16V
CF1-1	1-567-051-61	FILTER, CERAMIC (FM)			
CF1-2	1-567-051-61	FILTER, CERAMIC (FM)			
CF2	1-567-792-11	FILTER, AM CERAMIC			
CNJ201	*1-566-737-11	PIN, CONNECTOR 9P			
CT5	1-141-227-00	CAP, CERAMIC TRIMMER			
CT6	1-141-227-00	CAP, CERAMIC TRIMMER			
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D3	8-719-911-19	DIODE 1SS119			
D4	8-719-911-19	DIODE 1SS119			
D5	8-719-911-19	DIODE 1SS119			
D6	8-719-911-19	DIODE 1SS119			
D101	8-719-903-39	DIODE SLP135B-55			
D102	8-719-903-39	DIODE SLP135B-55			
D103	8-719-911-19	DIODE 1SS119			
D104	8-719-911-19	DIODE 1SS119			
D105	8-719-911-19	DIODE 1SS119			
D106	8-719-911-19	DIODE 1SS119			
D107	8-719-911-19	DIODE 1SS119			
D108	8-719-911-19	DIODE 1SS119			
D109	8-719-911-19	DIODE 1SS119			

Ref.No.	Par
D110	8-7
D111	8-7
D112	8-7
D113	8-7
D114	8-7
D115	8-7
D116	8-7
D117	8-7
D118	8-7
D119	8-7
D120	8-7
D121	8-7
D122	8-7
D123	8-7
D124	8-7
D125	8-7
D126	8-7
D127	8-7
D128	8-7
D129	8-7
D130	8-7
D131	8-7
D132	8-7
D133	8-7
D136	8-7
D201	8-7
D202	8-7
D203	⚠8-7
D204	⚠8-7
D205	⚠8-7
D206	8-7
D207	8-7
D208	8-7
FL101	1-5
IC1	1-8
IC101	8-7
IC102	8-7
L1	*1-4
L2	1-4
L3	*1-4
L4	*1-4
L5	1-4
L6	1-4
PT201	⚠1-4
PT201	⚠1-4

The components by shading and critical for s Replace only w number specifi

SECTION 6
ELECTRICAL PARTS LIST

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COILS
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SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
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	*A-3661-054-A	(UK).....MOUNTED PCB, CLOCK			
902	*1-622-052-11	PC BOARD, POWER			
903	⚠.1-551-958-00	(AEP,G-AEP,FRENCH)...CORD, POWER			
904	1-535-253-00	SNAP, BATTERY			
905	*A-3615-181-A	(AEP,G-AEP,FRENCH) ...PC BOARD ASSY, RADIO			
	*A-3615-182-A	(UK).....PC BOARD ASSY, RADIO			
906	⚠.1-559-511-11	(UK)....CORD, POWER			
907	1-535-416-00	TERMINAL			
C1	1-102-962-00	CERAMIC	30PF	5%	50V
C2	1-101-882-00	CERAMIC	51PF	5%	50V
C3	1-102-963-00	CERAMIC	33PF	5%	50V
C4	1-102-959-00	(UK).....CERAMIC	22PF	5%	50V
C4	1-102-961-00	(AEP,G-AEP,FRENCH) ...CERAMIC	27PF	5%	50V
C5	1-162-294-31	CERAMIC	0.001MF	10%	50V
C6	1-123-306-00	ELECT	47MF	20%	6.3V
C7	1-102-960-00	(UK).....CERAMIC	24PF	5%	50V
C7	1-102-962-00	(AEP,G-AEP,FRENCH) ...CERAMIC	30PF	5%	50V
C8	1-101-004-00	CERAMIC	0.01MF		50V
C9	1-101-004-00	CERAMIC	0.01MF		50V
C10	1-124-464-11	ELECT	0.22MF	20%	50V
C11	1-102-935-00	CERAMIC	2PF	0.25PF	50V
C12	1-102-963-00	CERAMIC	33PF	5%	50V
C13	1-101-005-00	CERAMIC	0.022MF		50V
C14	1-102-106-00	CERAMIC	100PF	10%	50V
C15	1-123-356-00	ELECT	10MF	20%	16V
C16	1-123-369-00	ELECT	4.7MF	20%	25V
C17	1-123-356-00	ELECT	10MF	20%	16V
C18	1-161-055-00	CERAMIC	0.022MF	10%	25V
C19	1-124-463-00	ELECT	0.1MF	20%	50V
C20	1-123-330-00	ELECT	22MF	20%	16V
C21	1-161-023-00	CERAMIC	0.068MF	10%	25V
C22	1-123-310-00	ELECT	470MF	20%	10V
C24	1-123-379-00	ELECT	0.47MF	20%	50V
C25	1-124-124-00	ELECT	220MF	20%	6.3V
C26	1-161-055-00	CERAMIC	0.022MF	10%	25V
C27	1-161-039-00	CERAMIC	0.001MF	10%	25V
C28	1-101-367-00	CERAMIC	160PF	5%	50V
C29	1-161-021-11	CERAMIC	0.047MF	10%	25V
C30	1-161-043-00	CERAMIC	0.0022MF	10%	25V
C31	1-161-896-11	CERAMIC	0.22MF		25V
C101	1-123-821-21	ELECT	47MF	20%	16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C102	1-124-258-00	ELECT	3.3MF	20%	35V
C103	1-161-494-00	CERAMIC	0.022MF		25V
C104	1-124-465-00	ELECT	0.47MF	20%	50V
C105	1-161-047-00	CERAMIC	0.0047MF	5%	25V
C106	1-161-772-11	CERAMIC	0.1MF	20%	25V
C107	1-161-379-00	CERAMIC	0.01MF	30%	16V
C108	1-161-020-11	CERAMIC	0.039MF	10%	25V
C109	1-161-772-11	CERAMIC	0.1MF	20%	25V
C110	1-162-282-31	CERAMIC	100PF	10%	50V
C111	1-162-282-31	CERAMIC	100PF	10%	50V
C112	1-162-282-31	CERAMIC	100PF	10%	50V
C113	1-162-282-31	CERAMIC	100PF	10%	50V
C114	1-161-494-00	CERAMIC	0.022MF		25V
C115	1-161-494-00	CERAMIC	0.022MF		25V
C116	1-161-494-00	CERAMIC	0.022MF		25V
C117	1-162-282-31	CERAMIC	100PF	10%	50V
C118	1-161-494-00	CERAMIC	0.022MF		25V
C119	1-161-379-00	CERAMIC	0.01MF	30%	16V
C201	1-101-003-00	CERAMIC	0.0047MF		50V
C202	1-101-003-00	CERAMIC	0.0047MF		50V
C203	1-123-974-00	ELECT	2200MF	20%	10V
C204	1-123-325-00	ELECT	2200MF	20%	16V
C205	1-101-003-00	CERAMIC	0.0047MF		50V
C206	1-123-333-00	ELECT	100MF	20%	16V
CF1-1	1-567-051-61	FILTER, CERAMIC (FM)			
CF1-2	1-567-051-61	FILTER, CERAMIC (FM)			
CF2	1-567-792-11	FILTER, AM CERAMIC			
CNJ201	*1-566-737-11	PIN, CONNECTOR 9P			
CT5	1-141-227-00	CAP, CERAMIC TRIMMER			
CT6	1-141-227-00	CAP, CERAMIC TRIMMER			
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D3	8-719-911-19	DIODE 1SS119			
D4	8-719-911-19	DIODE 1SS119			
D5	8-719-911-19	DIODE 1SS119			
D6	8-719-911-19	DIODE 1SS119			
D101	8-719-903-39	DIODE SLP135B-55			
D102	8-719-903-39	DIODE SLP135B-55			
D103	8-719-911-19	DIODE 1SS119			
D104	8-719-911-19	DIODE 1SS119			
D105	8-719-911-19	DIODE 1SS119			
D106	8-719-911-19	DIODE 1SS119			
D107	8-719-911-19	DIODE 1SS119			
D108	8-719-911-19	DIODE 1SS119			
D109	8-719-911-19	DIODE 1SS119			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D110	8-719-911-19	DIODE 1SS119
D111	8-719-911-19	DIODE 1SS119
D112	8-719-911-19	DIODE 1SS119
D113	8-719-911-19	DIODE 1SS119
D114	8-719-911-19	DIODE 1SS119
D115	8-719-911-19	DIODE 1SS119
D116	8-719-911-19	DIODE 1SS119
D117	8-719-911-19	DIODE 1SS119
D118	8-719-911-19	DIODE 1SS119
D119	8-719-911-19	DIODE 1SS119
D120	8-719-911-19	DIODE 1SS119
D121	8-719-911-19	DIODE 1SS119
D122	8-719-911-19	(UK)...DIODE 1SS119
D123	8-719-911-19	DIODE 1SS119
D124	8-719-911-19	DIODE 1SS119
D125	8-719-911-19	DIODE 1SS119
D126	8-719-911-19	DIODE 1SS119
D127	8-719-911-19	DIODE 1SS119
D128	8-719-911-19	DIODE 1SS119
D129	8-719-911-19	DIODE 1SS119
D130	8-719-911-19	DIODE 1SS119
D131	8-719-911-19	DIODE 1SS119
D132	8-719-911-19	DIODE 1SS119
D133	8-719-911-19	(UK)...DIODE 1SS119
D136	8-719-911-19	DIODE 1SS119
D201	8-719-911-19	DIODE 1SS119
D202	8-719-911-19	DIODE 1SS119
D203	⚠.8-719-200-02	DIODE 10E-2
D204	⚠.8-719-200-02	DIODE 10E-2
D205	⚠.8-719-200-02	DIODE 10E-2
D206	8-719-200-02	DIODE 10E-2
D207	8-719-200-02	DIODE 10E-2
D208	8-719-903-39	DIODE SLP135B-55
FL101	1-519-432-11	INDICATOR TUBE, FLUORESCENT
IC1	1-807-018-11	IC UPC1303G
IC101	8-759-907-40	IC TMS3454BN2L
IC102	8-759-140-11	IC UPD4011BC
L1	*1-401-228-00	ANTENNA COIL
L2	1-402-315-11	ANTENNA, FERRITE-ROD (LW/MW)
L3	*1-422-281-11	COIL, AIR-CORE
L4	*1-422-282-11	COIL, AIR-CORE
L5	1-406-042-00	COIL, FM OSC
L6	1-406-028-00	COIL, OSC (MW)
PT201	⚠.1-448-969-11	(AEP,G-AEP,FRENCH)...TRANSFORMER, POWER
PT201	⚠.1-448-970-11	(UK)....TRANSFORMER, POWER

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q1	8-729-117-54	TRANSISTOR 2SA1175			
Q2	8-729-195-23	TRANSISTOR 2SA952			
Q3	8-729-178-55	TRANSISTOR 2SC2785			
Q102	8-729-117-54	TRANSISTOR 2SA1175			
Q103	8-729-117-54	TRANSISTOR 2SA1175			
Q104	8-729-900-83	TRANSISTOR DTC124XS			
Q105	8-729-900-83	TRANSISTOR DTC124XS			
Q106	8-729-900-83	TRANSISTOR DTC124XS			
Q107	8-729-117-54	TRANSISTOR 2SA1175			
Q108	8-729-178-54	TRANSISTOR 2SC2785			
Q109	8-729-900-83	TRANSISTOR DTC124XS			
Q110	8-729-900-65	TRANSISTOR DTC144ES			
Q111	8-729-117-54	TRANSISTOR 2SA1175			
Q112	8-729-900-65	TRANSISTOR DTC144ES			
Q113	8-729-178-54	TRANSISTOR 2SC2785			
Q114	8-729-117-54	TRANSISTOR 2SA1175			
Q115	8-729-117-54	TRANSISTOR 2SA1175			
Q116	8-729-900-65	TRANSISTOR DTC144ES			
Q117	8-729-117-54	TRANSISTOR 2SA1175			
Q118	8-729-900-65	TRANSISTOR DTC144ES			
Q119	8-729-178-54	TRANSISTOR 2SC2785			
Q120	8-729-117-54	TRANSISTOR 2SA1175			
R1	1-249-423-11	CARBON	3.3K	5%	1/4W
R2	1-249-407-11	CARBON	150	5%	1/4W
R3	1-249-411-11	CARBON	330	5%	1/4W
R4	1-249-441-11	CARBON	100K	5%	1/4W
R5	1-249-429-11	CARBON	10K	5%	1/4W
R7	1-249-421-11	CARBON	2.2K	5%	1/4W
R8	1-249-411-11	CARBON	330	5%	1/4W
R9	1-249-432-11	CARBON	18K	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W
R11	1-249-429-11	CARBON	10K	5%	1/4W
R12	1-249-429-11	CARBON	10K	5%	1/4W
R13	1-249-435-11	CARBON	33K	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W
R15	1-249-423-11	CARBON	3.3K	5%	1/4W
R16	1-249-425-11	CARBON	4.7K	5%	1/4W
R17	1-215-398-00	CARBON	110	5%	1/4W
R18	1-249-429-11	CARBON	10K	5%	1/4W
R19	1-249-417-11	CARBON	1K	5%	1/4W
R20	1-249-417-11	CARBON	1K	5%	1/4W
R21	1-249-407-11	CARBON	150	5%	1/4W
R22	1-249-411-11	CARBON	330	5%	1/4W
R101	1-249-431-11	CARBON	15K	5%	1/4W
R102	1-249-431-11	CARBON	15K	5%	1/4W
R103	1-249-441-11	CARBON	100K	5%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R104	1-249-441-11	CARBON	100K	5%	1/4W
R105	1-215-406-00	CARBON	240	5%	1/4W
R106	1-249-417-11	CARBON	1K	5%	1/4W
R107	1-249-417-11	CARBON	1K	5%	1/4W
R108	1-249-429-11	CARBON	10K	5%	1/4W
R109	1-249-429-11	CARBON	10K	5%	1/4W
R110	1-249-437-11	CARBON	47K	5%	1/4W
R111	1-249-429-11	CARBON	10K	5%	1/4W
R112	1-249-429-11	CARBON	10K	5%	1/4W
R114	1-249-441-11	CARBON	100K	5%	1/4W
R115	1-249-437-11	CARBON	47K	5%	1/4W
R116	1-215-487-00	CARBON	560K	5%	1/4W
R117	1-249-441-11	CARBON	100K	5%	1/4W
R118	1-249-411-11	CARBON	330	5%	1/4W
R119	1-249-429-11	CARBON	10K	5%	1/4W
R120	1-249-423-11	CARBON	3.3K	5%	1/4W
R121	1-247-888-00	CARBON	240K	5%	1/4W
R122	1-249-437-11	CARBON	47K	5%	1/4W
R123	1-249-441-11	CARBON	100K	5%	1/4W
R124	1-249-429-11	CARBON	10K	5%	1/4W
R125	1-215-479-00	CARBON	270K	5%	1/4W
R126	1-249-429-11	CARBON	10K	5%	1/4W
R127	1-249-413-11	CARBON	470	5%	1/4W
R128	1-249-437-11	CARBON	47K	5%	1/4W
R129	1-249-429-11	CARBON	10K	5%	1/4W
R130	1-249-433-11	CARBON	22K	5%	1/4W
R132	1-249-441-11	CARBON	100K	5%	1/4W
R133	1-249-429-11	CARBON	10K	5%	1/4W
R134	1-249-441-11	CARBON	100K	5%	1/4W
R135	1-249-441-11	CARBON	100K	5%	1/4W
R137	1-249-433-11	CARBON	22K	5%	1/4W
~~R138~~	~~1-247-838-00~~	~~CARBON~~	~~2K~~	~~5%~~	~~1/4W~~
R139	1-249-405-11	CARBON	100	5%	1/4W
R140	1-249-441-11	CARBON	100K	5%	1/4W
R143	1-249-417-11	CARBON	1K	5%	1/4W
R144	1-249-417-11	CARBON	1K	5%	1/4W
R145	1-215-438-00	CARBON	5.1K	5%	1/4W
R146	1-249-429-11	CARBON	10K	5%	1/4W
R147	1-249-437-11	CARBON	47K	5%	1/4W
R152	1-249-437-11	CARBON	47K	5%	1/4W
R153	1-249-429-11	CARBON	10K	5%	1/4W
R154	1-249-441-11	CARBON	100K	5%	1/4W
R155	1-249-429-11	CARBON	10K	5%	1/4W
R156	1-249-433-11	CARBON	22K	5%	1/4W
R157	1-247-838-00	CARBON	2K	5%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R203	1-249-414-11	CARBON	560	5%	1/4W
R204	1-247-846-00	CARBON	4.3K	5%	1/4W
R205	1-247-778-00	CARBON	6.2	5%	1/4W
R206	1-247-778-00	CARBON	6.2	5%	1/4W
R207	1-215-440-00	CARBON	6.2K	5%	1/4W
RV1	1-237-708-11	RES, VAR, CARBON 50K (VOL)			
RV101	1-237-871-11	RES, ADJ, CARBON 100K			
S1	1-571-218-11	SWITCH, SLIDE (BAND)			
S101	1-554-303-21	SWITCH, KEY BOARD (TIME SET +)			
S102	1-554-303-21	SWITCH, KEY BOARD (TIME SET -)			
S103	1-554-303-21	SWITCH, KEY BOARD (TIME SET CLOCK)			
S104	1-554-303-21	SWITCH, KEY BOARD (RADIO)			
S105	1-554-303-21	SWITCH, KEY BOARD (BUZZER)			
S106	1-554-303-21	SWITCH, KEY BOARD (ALARM RESET SLEEP)			
S107	1-554-303-21	SWITCH, KEY BOARD (ALARM RESET OFF)			
S108	1-554-303-21	SWITCH, KEY BOARD (REPEAT ALARM)			
S109	1-554-303-21	SWITCH, KEY BOARD (REPEAR ALARM)			
S110	1-571-122-11	SWITCH, SLIDE (ALARM 1)			
S111	1-571-122-11	SWITCH, SLIDE (ALARM 2)			
S112	1-554-303-21	SWITCH, KEY BOARD (ALARM RESET ON)			
S201	1-571-123-11	SWITCH, SLIDE (BRIGHT)			
SP901	1-503-383-11	SPEAKER			
VC1	1-151-478-11	CAP, TUNING, POLYETHYLENE			

ACCESSORY & PACKING MATERIAL

Part No.	Description
2-326-445-01	BAG, POLYETHYLENE
~~3-090-190-01~~	~~BAG, PROTECTION~~
*3-764-461-01	(G-AEP)...INSTRUCTION
3-898-138-01	(FRENCH)...CUSHION (LEFT)
3-898-139-01	(FRENCH)...CUSHION (RIGHT)
3-898-188-01	(AEP,G-AEP,UK)...CUSHION (LEFT)
3-898-189-01	(AEP,G-AEP,UK)...CUSHION (RIGHT)
3-898-804-01	(UK).....INDIVIDUAL CARTON
3-898-807-01	(AEP,G-AEP)...INDIVIDUAL CARTON
3-898-808-01	(FRENCH).....INDIVIDUAL CARTON
3-990-120-11	(AEP,G-AEP,UK)...MANUAL, INSTRUCTION
3-990-120-31	(AEP).....MANUAL, INSTRUCTION
3-990-120-41	(FRENCH).....MANUAL, INSTRUCTION
3-990-120-51	(AEP,G-AEP).....MANUAL, INSTRUCTION